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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/567,461 | 06/28/2006 | Takashi Kubota | Q93093 | 4442 |
| 23373 | 7590 | 10/29/2007 | | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | | |
| | | | EXAMINER | |
| | | | NGUYEN, KHANH TUAN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1796 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/567,461

Applicant(s)

KUBOTA, TAKASHI

Examiner

Khanh T. Nguyen

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-3 are currently pending in the instant application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 02/07/2006 and 04/19/2006 has been regarded by Examiner and made of record in the application file.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being unpatentable by Teichmann (U.S. Pat. 4,711,814 hereinafter, "Teichmann") or Kawasumi (U.S. Pat. 4,450,188 hereinafter, "Kawasumi") or Ostolski (U.S. Pat. 5,882,802 hereinafter, "Ostolski").

Teichmann teaches (Please see Fig. 1) an electroconductive particle that has a gold coating 11 formed over a solid nickel particle by electroless plating method (Col. 2, lines 25-35 and Col. 3, lines 14-21).

Similarly, Kawasumi teaches a nickel core or copper core particle coated by gold, silver, platinum or palladium (Col. 2, lines 30-51). Kawasumi also teaches coating methods such as electroplating, vacuum deposition and chemical plating (Col. 1, lines 45-64).

Similarly, Ostolski teaches electroplating gold onto nickel powder (Col. 20, Example 4).

The amount of nickel dissolved in a dissolution test of the electroconductive particle with nitric acid is an inherent property since Teichmann, Kawasumi and Ostolski teach the same electroconductive particle (i.e. gold-coated nickel particle) produce by the same method (e.g. electroless plating method and electroplating method etc.).

The reference specifically or inherently meets each of the claimed limitations.

The reference is anticipatory.

7. Claim 3 is rejected under 35 U.S.C. 102(b) as being unpatentable by Khanna (U.S. Pat. 6,838,022 hereinafter, "Khanna").

Khanna teaches an anisotropic conductive material comprising of (ii) gold-coated nickel particles suspended in a binder (Col. 1, lines 54-59). The reference specifically or inherently meets each of the claimed limitations.

The reference is anticipatory.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmann (U.S. Pat. 4,711,814 hereinafter, "Teichmann") in view of Toben (U.S. Pat. 6,383,269 hereinafter, "Toben").

Teichmann teaches an electroconductive particle that has a gold coating 11 formed over a solid nickel particle by electroless plating method (Col. 2, lines 25-35 and Col. 3, lines 14-21 and Fig. 1).

Teichmann failed to teach a reducing agent causing oxidation reaction on the surface of a nickel undercoating but not causing oxidation reaction on the surface of gold as deposition.

However, Toben teaches a method of plating gold layer on a nickel substrate (i.e. undercoating) (Abstract). Toben also teaches the nickel undercoating is preferably oxidized by a reducing agent (e.g. hydroxylamine) to minimize the tendency for bipolar attack of the nickel layer (Col. 3, lines 5064). Toben further teaches the reducing agent is used in the processing steps between nickel and gold plating (Col. 3, lines 14-21). Thus, only the nickel undercoating would be oxidized by the reducing agent.

Teichmann and Toben references are combined because both references teach a method of gold plating on a nickel undercoat substrate (core particle). Therefore, it would have been obvious to a skill artisan to modified the gold plating method of Teichmann by oxidation the surface of nickel before deposition of gold particle to said nickel surface in order to minimized bipolar attack.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh T. Nguyen whose telephone number is (571) 272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KTN

KTN
10/05/2007

Lorna M. Douyon

LORNA M. DOUYON
PRIMARY EXAMINER